UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MANHATTAN COLLEGE

DOCKET NO. 50-199

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 10
License No. R-94

1. The U. S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to Facility Operating License No. R-94, filed by Manhattan College (the licensee), dated March 2, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

   F. Prior notice of this amendment was not required by 10 CFR 2.105(a)(4) and publication of notice for this amendment is not required by 10 CFR 2.106(a)(2).

2. Accordingly, the license is amended by changing License Conditions 2.B.(4) and 2.C.(2) to read as follows:

   2.B.(4) Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of byproduct Material," to possess and use a sealed source of up to 5 millicuries for radiation monitoring equipment calibration.

2.C.(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 10, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Seymour H. Weiss

Seymour H. Weiss, Director
Non-Power Reactors, Decommissioning and
Environmental Project Directorate
Division of Advanced Reactors
and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Appendix A Technical Specifications
Changes

Date of Issuance: April 13, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 10

FACILITY OPERATING LICENSE NO. R-94

DOCKET NO. 50-199

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain a vertical line indicating the area of change.

Remove	Insert
4-8	4-8
4-9	4-9
4-10	4-10
4-11	4-11
-	4-12
6-13	6-13
-	6-14

4.7 Radiation Monitoring System

4.7.1 Applicability

These specifications apply to the surveillance activities required for the radiation monitoring system.

4.7.2 Objective

To specify the frequency and type of testing to assure that the radiation monitoring system conforms to the specification of section 3.7 of these Specifications.

4.7.3 Specifications

These surveillance activities are required for safety.

A. A calibration of the two radiation monitoring channels shall be performed at least annually and whenever any maintenance on a channel which may affect its performance is completed. This calibration shall be performed by comparing the readings of these instruments with those on a portable beta-gamma survey meter. The latter shall be calibrated annually by a recognized diagnostic laboratory.

B. An operability test, including source checks, of the radiation monitoring channels shall be performed at least quarterly (and recorded in the reactor checkout sheets).

C. Readings of the radiation levels of all instruments shall be recorded hourly during operation with the reactor being critical.

D. The environmental film badge and smear surveys in and around the reactor enclosure shall be performed at least twice a year.

E. An ALARA program shall be established and monitored by a Radiation Safety Officer (RSO).

F. The 5 millicurie sealed source shall be tested semi-annually for leakage and/or contamination by:

a. The licensee, or
b. Other persons specifically authorized by the Nuclear Regulatory Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.

4.7.4 Bases

Based on experience at this facility and the average usage pattern of the reactor, specifications A-F are adequate to verify that the operations conform to the specifications of 3.7.3 The usage pattern shall be subject to review by the Reactor Operations Committee.

4.8 Experiments

4.8.1 Applicability

These specifications apply to the surveillance activities required for experiments installed in the reactor.

4.8.2 Objective

To specify the frequency and type of testing to assure that the experiments conform to the specifications of section 3.8 of these Specifications.

4.8.3 Specifications

A. The identification and location of all installed experiments shall be recorded prior to each reactor startup.

B. Other specific surveillance activities shall be established during the review and approval process specified in section 6.0.

4.8.4 Bases

Specification A requires that the reactor operator verify that the installed experiments are approved.

Specification B recognizes that detailed surveillance requirements will vary among experiments, and that the Reactor Operations Committee specifies the appropriate type and frequency of surveillance.

4.9 Facility Specific Surveillance

No Facility Specific Limiting Conditions for Operations are provided in section 3.9.

4.10 Frequency of Testing

4.10.1 Applicability

This specification applies to all surveillance requirements of Section 4 of these Technical Specifications.

4.10.2 Objective

The objective of this specification is to establish maximum time intervals for surveillance periods. It is intended that this specification provide operational flexibility and not reduce surveillance frequency.

4.10.3 Specifications

4.10.3.1

Time intervals used elsewhere in these specifications shall be defined as follows:

A.	Biennially	-	Interval not to exceed 30 months.
B.	Annually	-	Interval not to exceed 15 months.
C.	Semi-annually	-	Interval not to exceed 32 weeks.
D.	Quarterly	-	Interval not to exceed 18 weeks.
E.	Monthly	-	Interval not to exceed 6 weeks.
F.	Weekly	-	Interval not to exceed 10 days.
G.	Daily	-	Must be done prior to the first startup of the calendar day following a shutdown greater than 12 hours.

6.7 Records

6.7.1 Records to be Retained for a Period of at Least Five Years or for the Life of the Component if Less than Five Years

1. Normal reactor facility operation (but not including supporting documents such as checklists, log sheets, etc., which shall be maintained for a period of at least one year).

2. Principal maintenance operations.

3. Reportable occurrences.

4. Surveillance activities required by the Technical Specifications.

5. Reactor facility radiation and contamination surveys where required by applicable regulations.

6. Laboratory exercises performed with the reactor.

7. Fuel inventories, receipts, and shipments.

8. Approved changes in operating procedures.

9. Records of meetings and audit reports of the Reactor Operations Committee.

10. Records of sealed source leak tests.

11. Records of annual physical inventory of sealed source material of record.

6.7.2 Records to be Retained for at Least One Training Cycle

Retraining and requalification of licensed operators: Records of the most recent complete cycle shall be maintained at all times the individual is employed.

6.7.3 Records to be Retained for the Lifetime of the Reactor Facility

Applicable annual reports, if they contain all of the required information, may be used as records in this section.

1. Gaseous and liquid radioactive effluents, if any, released to the environs.

2. On-site environmental monitoring surveys required by the Technical Specifications.

3. Radiation exposure for all personnel monitored.

4. Drawings of the reactor facility.